AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium comprising between 50% by weight and 100% by weight of water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety having at least pH-indicating, whitening, fluorescent, phosphorescent, X-ray phosphor, ~~organic conductive or organo-metallic~~ or polymeric intrinsically conductive properties.

2. (Currently Amended) The process according to claim 1, wherein said moiety having at least whitening, fluorescent, phosphorescent, X-ray phosphor, ~~organic conductive or organo-metallic~~ or polymeric intrinsically conductive properties is an intrinsically conductive polymer.

3. (Previously Presented) The process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and polythiophene derivatives.

4. (Previously Presented) The process according to claim 2, wherein said intrinsically conductive polymer is a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge.

5. (Previously Presented) The process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of: homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-(propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof.

6. (Previously Presented) The process according to claim 1, wherein said aqueous fountain medium further comprises a polyanion.

7. (Previously Presented) The process according to claim 6, wherein said polyanion is poly(styrenesulfonate).

8. (Previously Presented) The process according to claim 1, wherein said aqueous fountain medium further comprises a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound.

9. (Previously Presented) The process according to claim 8, wherein said di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound is selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di(ethylene glycol)ethyl ether acetate.

10. (Previously Presented) The process according to claim 8, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a temperature of 100 to 250°C.

11. (Previously Presented) The process according to claim 1, wherein said aqueous fountain medium further contains an aprotic organic compound with a dielectric constant ≥ 15.

12. (Previously Presented) The process according to claim 11, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a temperature of ≤ 150°C.

13. (Previously Presented) The process according to claim 1, wherein said fountain further comprises a non-ionic or anionic surfactant.

14. (Previously Presented) The process according to claim 1, wherein said fountain has a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

15. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium comprising between 50% by weight and 100% by weight of water, said fountain further

comprising as a solution or a dispersion in said fountain medium at least one moiety having at least coloring, pH-indicating, whitening, fluorescent, phosphorescent, X-ray phosphor or polymeric intrinsically conductive properties, wherein said fountain comprises a dye and/or a pigment such that the color tone of the ink and color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.

16. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium comprising between 50% by weight and 100% by weight of water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety having at least coloring, pH-indicating, whitening, fluorescent, phosphorescent, X-ray phosphor or polymeric intrinsically conductive properties, wherein said printing ink comprises a dye and/or a pigment such that the color tone of the ink and color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.

17. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium comprising between 50% by weight and 100% by weight of water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety having at least whitening, fluorescent, phosphorescent, X-ray phosphor, ~~organic conductive or organo-metallic~~ or polymeric intrinsically conductive properties.

18. (Currently Amended) The process according to claim 17, wherein said moiety having at least whitening, fluorescent, phosphorescent, X-ray phosphor, ~~organic conductive or organo-metallic~~ or polymeric intrinsically conductive properties is an intrinsically conductive polymer.

19. (Previously Presented) The process according to claim 18, wherein said intrinsically conductive polymer is selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and

polythiophene derivatives.

20. (Previously Presented) The process according to claim 18, wherein said intrinsically conductive polymer is a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge.

21. (Previously Presented) The process according to claim 18, wherein said intrinsically conductive polymer is selected from the group consisting of: homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxy-thiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-(propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylene-dioxythiophene) derivatives and copolymers thereof.

22. (Previously Presented) The process according to claim 17, wherein said aqueous fountain medium further comprises a polyanion.

23. (Previously Presented) The process according to claim 22, wherein said polyanion is poly(styrenesulfonate).

24. (Previously Presented) The process according to claim 17, wherein said aqueous fountain medium further contains a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound.

25. (Previously Presented) The process according to claim 24, wherein said di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound is selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di(ethylene glycol)ethyl ether acetate.

26. (Previously Presented) The process according to claim 24, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a

temperature of 100 to 250°C.

27. (Previously Presented) The process according to claim 17, wherein said aqueous fountain medium further contains an aprotic organic compound with a dielectric constant ≥ 15.

28. (Previously Presented) The process according to claim 27, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a temperature of ≤ 150°C.

29. (Previously Presented) The process according to claim 17, wherein said fountain further comprises a non-ionic or anionic surfactant.

30. (Previously Presented) The process according to claim 17, wherein said fountain has a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

31. (Previously Presented) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium which comprises water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety which is an intrinsically conductive polymer.

32. (Previously Presented) The process according to claim 31, wherein said intrinsically conductive polymer is selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and polythiophene derivatives.

33. (Previously Presented) The process according to claim 31, wherein said intrinsically conductive polymer is a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge.

34. (Previously Presented) The process according to claim 31, wherein said intrinsically conductive polymer is selected from the group consisting of: homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-(propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof.

35. (Previously Presented) The process according to claim 31, wherein said aqueous fountain medium further comprises a polyanion.

36. (Previously Presented) The process according to claim 35, wherein said polyanion is poly(styrenesulfonate).

37. (Previously Presented) The process according to claim 31, wherein said aqueous fountain medium further comprises a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound.

38. (Previously Presented) The process according to claim 37, wherein said di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound is selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di(ethylene glycol)ethyl ether acetate.

39. (Previously Presented) The process according to claim 37, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a temperature of 100 to 250°C.

40. (Previously Presented) The process according to claim 31, wherein said aqueous fountain medium further contains an aprotic organic compound with a dielectric constant ≥ 15.

41. (Previously Presented) The process according to claim 40, wherein said process further comprises heating said receiving medium within 10 minutes after printing to a temperature of ≤ 150°C.

42. (Previously Presented) The process according to claim 31, wherein said fountain further comprises a non-ionic or anionic surfactant.

43. (Previously Presented) The process according to claim 31, wherein said fountain has a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.

This listing of claims replaces all prior versions, and listings, of claims in the application.